

*If you are using a printed copy of this procedure, and not the on-screen version, then you **MUST** make sure the dates at the bottom of the printed copy and the on-screen version match. The on-screen version of the Collider-Accelerator Department Procedure is the Official Version. Hard copies of all signed, official, C-A Operating Procedures are available by contacting the **ESSHQ Procedures Coordinator, Bldg. 911A***

C-A OPERATIONS PROCEDURES MANUAL

ATTACHMENT

4.120.124.j.a ATF Laser Facility Critical Device Tests

C-A OPM Procedures in which this Attachment is used.		
4.120.124		

Hand Processed Changes

<u>HPC No.</u>	<u>Date</u>	<u>Page Nos.</u>	<u>Initials</u>
_____	_____	_____	_____
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Approved: _____ ***Signature on File*** _____
 Physics Department Chair Date

V. Castillo

C-A-OPM-ATT 4.120.124.j.a

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Revision 01
 March 13, 2008

4.120.124.j.a ATF Critical Device Tests

ATF ANNUAL ACCEPTANCE TEST PROTOCOL

Division A Software Filename and Checksum: Title: _____ Checksum: _____

Division B Software Filename and Checksum: Title: _____ Checksum: _____

Initial testing complete:

Test Team Leader's Name (Print): _____ Life Number: _____

Test Team Leader's Name (Sign): _____ Date: ____/____/____

Acceptance test procedure complete (following repairs and retesting if required):

Test Team Leader's Name (Print): _____ Life Number: _____

Test Team Leader's Name (Sign): _____ Date: ____/____/____

Test results reviewed by:

Safety Section Head's Name (Print): _____ Life Number: _____

Safety Section Head's Name (Sign): _____ Date: ____/____/____

Test results accepted by Radiation Safety Committee:

RSC Member's Name (Print): _____ Life Number: _____

RSC Member's Name (Sign): _____ Date: ____/____/____

LOTO INSTRUCTIONS

During these tests the Laser Power Supplies must be LOTOed by the ATF Laser Facility Manager or Designee and the Access Controls Security Group Leader or Designee.

<input type="checkbox"/>	Verify	Laser Power Supplies, except YAG PS, are	LOTOed
<input type="checkbox"/>	Verify	Key to YAG PS is	LOTOed
<input type="checkbox"/>	Verify	YAG Laser Bypass Shutter is	CLOSED

1.1 Verify conditions for Normal State for YAG Room (YR): Pri CD, Yag Laser shutter (YLS) and Rhb CD, Yag Power supplies (YPS) Enabled; Pri Cds: LL2 to YAG shutter (LY2S); LL3to YAG shutter (LY3S) and Rhb CD Laser Lab Shutter (LLS)

<input type="checkbox"/>	SET	YR Sweep	NG SWEEP
<input type="checkbox"/>	VERIFY	ACR sees YR Sweep is	NG SWEEP
<input type="checkbox"/>	SET	LL Sweep	NG SWEEP
<input type="checkbox"/>	VERIFY	ACR sees LL Sweep is	NG SWEEP
<input type="checkbox"/>	VERIFY	ACR sees on Over-view Page (OVP) Local Shutters: YLS <input type="checkbox"/> and Rhb CD LLS <input type="checkbox"/>	DISABLED
<input type="checkbox"/>	VERIFY	Visually YLS <input type="checkbox"/> and LLS <input type="checkbox"/> are	CLOSED
<input type="checkbox"/>	VERIFY	Attempt to open YLS <input type="checkbox"/> and LLS <input type="checkbox"/> with Shutter keys in ACR	FAIL
<input type="checkbox"/>	SET	YLS and LLS Shutter keys in Closed position	
<input type="checkbox"/>	VERIFY	YLS <input type="checkbox"/> and LLS <input type="checkbox"/> Shutter key position is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees on Over-view Page (OVP) Room to Room Shutters: LY2S <input type="checkbox"/> and LY3S <input type="checkbox"/>	ENABLED
<input type="checkbox"/>	VERIFY	Visually LY2S <input type="checkbox"/> and LY3S <input type="checkbox"/> are	CLOSED
<input type="checkbox"/>	VERIFY	Attempt to open LY2S <input type="checkbox"/> and LY3S <input type="checkbox"/> with Shutter keys in ACR	SUCCESSFUL
<input type="checkbox"/>	VERIFY	Visually LY2S <input type="checkbox"/> and LY3S <input type="checkbox"/> are	OPEN
<input type="checkbox"/>	SET	LY2S and LY3S Shutter keys in Closed position	
<input type="checkbox"/>	VERIFY	LY2S <input type="checkbox"/> and LY3S <input type="checkbox"/> Shutter key position is	CLOSED
<input type="checkbox"/>	VERIFY	YR SOR is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP Rhb CD Yag Power Supply (YLPS) is	ENABLED
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 14 is	ON
<input type="checkbox"/>	CLOSE	Yag Room to Vestibule 1 gate, YV1G1	
<input type="checkbox"/>	VERIFY	YV1G1	CLOSED
<input type="checkbox"/>	CLOSE	Yag Room to Laser Lab gate, YLG1	
<input type="checkbox"/>	VERIFY	YLG1	CLOSED
<input type="checkbox"/>	CLOSE	Exit Vestibule 1 gate, EV1G1	
<input type="checkbox"/>	VERIFY	EV1G1	CLOSED
<input type="checkbox"/>	CLOSE	Gun Hutch to Vestibule 1 gate, GV1G1	
<input type="checkbox"/>	VERIFY	GV1G1	CLOSED
<input type="checkbox"/>	CLOSE	Laser Lab to Vestibule 1 gate, LV1G1	
<input type="checkbox"/>	VERIFY	LV1G1	CLOSED

<input type="checkbox"/>	VERIFY	Yag Room Crash	OK
<input type="checkbox"/>	VERIFY	Yag Room Blk I/O	OK
<input type="checkbox"/>	VERIFY	Atf Control Room Crash	OK
	SWEEP	YR	
<input type="checkbox"/>	VERIFY	ACR sees Yag Room	SWEEP GOOD
<input type="checkbox"/>	VERIFY	ACR sees on OVP Pri CD Yag Laser Shutter, YLS , is	ENABLED
<input type="checkbox"/>	VERIFY	Visually YLS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees on OVP Pri CD LL2 to Yag Shutter, LY2S , is	ENABLED
<input type="checkbox"/>	VERIFY	Visually LY2S is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees on OVP Pri CD LL3 to Yag Shutter, LY3S , is	ENABLED
<input type="checkbox"/>	VERIFY	Visually LY3S is	CLOSED
	SWEEP	LL	
<input type="checkbox"/>	VERIFY	ACR sees LL	SWEEP GOOD
<input type="checkbox"/>	VERIFY	ACR sees on OVP Rhb CD Laser Lab Shutter, LLS , is	ENABLED
<input type="checkbox"/>	VERIFY	Visually LLS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 5 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel YLS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-3 Out 9 is	ON
<input type="checkbox"/>	VERIFY	At CO2 Main Panel YLS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-3 Out 1 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel YLS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 7 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel LY2S enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees LLBI/O-3 Out 8 is	ON
<input type="checkbox"/>	VERIFY	At LL Main Panel LY2S enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 8 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel LY3S enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees LLBI/O-3 Out 9 is	ON
<input type="checkbox"/>	VERIFY	At LL Main Panel LY3S enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 9 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel LLS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees LLBI/O-3 Out 11 is	ON
<input type="checkbox"/>	VERIFY	At LL Main Panel LLS enabled led is	ON
	OPEN	YLS with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 13 is	ON
<input type="checkbox"/>	VERIFY	Visually YLS is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn. ACRBI/O In 11 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for YLS OPEN on OVP YRBI/O-2 In 6 is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-3 Out 8 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel YLS Open led is	ON
	CLOSE	YLS with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 13 is	OFF
<input type="checkbox"/>	VERIFY	Visually YLS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn. ACRBI/O In 11 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees for YLS CLOSED on OVP YRBI/O-2 In 7 is	ON

<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-3 Out 9 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel YLS Closed led is	ON
	OPEN	YLS with key at YR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn YRBI/O In 13 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP YLS is	OPEN
	CLOSE	YLS with key at YR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn YRBI/O In 13 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP YLS is	CLOSED
	OPEN	YLS with key at C2R	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn C2BI/O-2 In 8 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP YLS is	OPEN
	CLOSE	YLS with key at C2R	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn C2BI/O-2 In 8 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP YLS is	CLOSED
	OPEN	YLS with key at FR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn FRBI/O In 11 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP YLS is	OPEN
	CLOSE	YLS with key at FR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn FRBI/O In 11 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP YLS is	CLOSED
	OPEN	LY2S with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees LLBI/O-4 Out 2 is	ON
<input type="checkbox"/>	VERIFY	Visually LY2S is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn. ACRBI/O In 4 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for LY2S OPEN on OVP LLBI/O In 13 is	ON
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-3 Out 7 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel LY2S Open led is	ON
	CLOSE	LY2S with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees LLBI/O-4 Out 2 is	OFF
<input type="checkbox"/>	VERIFY	Visually LY2S is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn. ACRBI/O In 4 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees for LY2S CLOSED on OVP LLBI/O In 14 is	ON
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-3 Out 8 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel LY2S Closed led is	ON
	OPEN	LY2S with key at YR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn YRBI/O In 11 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP LY2S is	OPEN
	CLOSE	LY2S with key at YR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn YRBI/O In 11 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP LY2S is	CLOSED
	OPEN	LY2S with key at LL	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn LLBI/O In 8 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP LY2S is	OPEN
	CLOSE	LY2S with key at LL	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn LLBI/O In 8 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP LY2S is	CLOSED

OPEN	LY3S with key at ACR	
<input type="checkbox"/> VERIFY	ACR sees LLBI/O-4 Out 3 is	ON
<input type="checkbox"/> VERIFY	Visually LY3S is	OPEN
<input type="checkbox"/> VERIFY	ACR sees for key in Open posn. ACRBI/O In 5 is	ON
<input type="checkbox"/> VERIFY	ACR sees for LY3S OPEN on OVP LLBI/O In 15 is	ON
<input type="checkbox"/> VERIFY	ACR sees YRBI/O-3 Out 9 is	ON
<input type="checkbox"/> VERIFY	At YR Main Panel LY3S Open led is	ON
CLOSE	LY3S with key at ACR	
<input type="checkbox"/> VERIFY	ACR sees LLBI/O-4 Out 3 is	OFF
<input type="checkbox"/> VERIFY	Visually LY3S is	CLOSED
<input type="checkbox"/> VERIFY	ACR sees for key in Closed posn. ACRBI/O In 5 is	OFF
<input type="checkbox"/> VERIFY	ACR sees for LY3S CLOSED on OVP LLBI/O-2 In 0 is	ON
<input type="checkbox"/> VERIFY	ACR sees YRBI/O-3 Out 10 is	ON
<input type="checkbox"/> VERIFY	At YR Main Panel LY3S Closed led is	ON
OPEN	LY3S with key at YR	
<input type="checkbox"/> VERIFY	ACR sees for key in Open posn YRBI/O In 12 is	ON
<input type="checkbox"/> VERIFY	ACR sees on OVP LY3S is	OPEN
CLOSE	LY3S with key at YR	
<input type="checkbox"/> VERIFY	ACR sees for key in Closed posn YRBI/O In 12 is	OFF
<input type="checkbox"/> VERIFY	ACR sees on OVP LY3S is	CLOSED
OPEN	LY3S with key at LL	
<input type="checkbox"/> VERIFY	ACR sees for key in Open posn LLBI/O In 10 is	ON
<input type="checkbox"/> VERIFY	ACR sees on OVP LY3S is	OPEN
CLOSE	LY3S with key at LL	
<input type="checkbox"/> VERIFY	ACR sees for key in Closed posn LLBI/O In 10 is	OFF
<input type="checkbox"/> VERIFY	ACR sees on OVP LY3S is	CLOSED
OPEN	LLS with key at ACR	
<input type="checkbox"/> VERIFY	ACR sees LLBI/O-4 Out 4 is	ON
<input type="checkbox"/> VERIFY	Visually LLS is	OPEN
<input type="checkbox"/> VERIFY	ACR sees for key in Open posn. ACRBI/O-2 In 0 is	ON
<input type="checkbox"/> VERIFY	ACR sees for LLS OPEN on OVP LLBI/O-2 In 1 is	ON
<input type="checkbox"/> VERIFY	ACR sees YRBI/O-3 Out 13 is	ON
<input type="checkbox"/> VERIFY	At YR Main Panel LLS Open led is	ON
CLOSE	LLS with key at ACR	
<input type="checkbox"/> VERIFY	ACR sees LLBI/O-4 Out 4 is	OFF
<input type="checkbox"/> VERIFY	Visually LLS is	CLOSED
<input type="checkbox"/> VERIFY	ACR sees for key in Closed posn. ACRBI/O-2 In 0 is	OFF
<input type="checkbox"/> VERIFY	ACR sees for LLS CLOSED on OVP LLBI/O-2 In 2 is	ON
<input type="checkbox"/> VERIFY	ACR sees YRBI/O-3 Out 14 is	ON
<input type="checkbox"/> VERIFY	At YR Main Panel LLS Closed led is	ON
OPEN	LLS with key at YR	
<input type="checkbox"/> VERIFY	ACR sees for key in Open posn YRBI/O In 14 is	ON
<input type="checkbox"/> VERIFY	ACR sees on OVP LLS is	OPEN
CLOSE	LLS with key at YR	
<input type="checkbox"/> VERIFY	ACR sees for key in Closed posn YRBI/O In 14 is	OFF
<input type="checkbox"/> VERIFY	ACR sees on OVP LLS is	CLOSED
OPEN	LLS with key at LL	

- | | | | |
|--------------------------|---------------|--|---------------|
| <input type="checkbox"/> | VERIFY | ACR sees for key in Open posn LLBI/O-2 In 3 is | ON |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP LLS is | OPEN |
| | CLOSE | LLS with key at LL | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Closed posn LLBI/O-2 In 3 is | OFF |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP LLS is | CLOSED |
- ☐ **Verify conditions for Normal State for YAG Room (YR): Pri CD, Yag Laser shutter (YLS) and Rhb CD, Yag Power supplies (YPS) Enabled; Pri Cds: LL2 to YAG shutter (LY2S); LL3to YAG shutter (LY3S) and Rhb CD Laser Lab Shutter (LLS)**

1.2 Verify conditions for Normal State for CO2 Room (C2R): Pri CDs: CO2 Osc Laser shutter (CLS); Yag to CO2 Shutter (YCS) and Rhb CDs: CO2 Osc Power Supply (CLPS) and Yag Laser Shutter (YLS) Enabled

- | | | | |
|--------------------------|---------------|--|-------------------|
| | SET | C2R Sweep | NG SWEEP |
| <input type="checkbox"/> | VERIFY | ACR sees C2R Sweep is | NG SWEEP |
| | SET | YR Sweep | NG SWEEP |
| <input type="checkbox"/> | VERIFY | ACR sees YR Sweep is | NG SWEEP |
| <input type="checkbox"/> | VERIFY | ACR sees on Over-view Page (OVP) Local Shutters: CLS <input type="checkbox"/> and YLS <input type="checkbox"/> are | DISABLED |
| <input type="checkbox"/> | VERIFY | Visually CLS <input type="checkbox"/> and YLS <input type="checkbox"/> are | CLOSED |
| <input type="checkbox"/> | VERIFY | Attempt to open CLS <input type="checkbox"/> , and YLS <input type="checkbox"/> with Shutter keys in ACR | FAIL |
| | SET | CLS and YLS Shutter keys in Closed position | |
| <input type="checkbox"/> | VERIFY | CLS <input type="checkbox"/> and YLS <input type="checkbox"/> Shutter key position is | CLOSED |
| <input type="checkbox"/> | VERIFY | ACR sees on Over-view Page (OVP) Room to Room Shutter YCS is | ENABLED |
| <input type="checkbox"/> | VERIFY | Visually YCS is | CLOSED |
| <input type="checkbox"/> | VERIFY | Attempt to open YCS with Shutter key in ACR | SUCCESSFUL |
| <input type="checkbox"/> | VERIFY | Visually YCS is | OPEN |
| | SET | YCS Shutter keys in Closed position | |
| <input type="checkbox"/> | VERIFY | YCS Shutter key position is | CLOSED |
| <input type="checkbox"/> | VERIFY | C2R SOR is | ON |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP Rhb CD CO2 Osc Power Supply (CLPS) is | ENABLED |
| <input type="checkbox"/> | VERIFY | ACR sees C2BI/O-4 Out 4 is | ON |
| | CLOSE | CO2 Room to Vestibule 2 gate, CV2G1 | |
| <input type="checkbox"/> | VERIFY | CV2G1 | CLOSED |
| | CLOSE | Exit from CO2 Amp Room gate, ECG1 | |
| <input type="checkbox"/> | VERIFY | ECG1 | CLOSED |
| | CLOSE | Exit Vestibule 2 gate, EV2G1 | |
| <input type="checkbox"/> | VERIFY | EV2G1 | CLOSED |
| | CLOSE | Fel Room to Vestibule 2 gate, FV2G1 | |
| <input type="checkbox"/> | VERIFY | FV2G1 | CLOSED |
| <input type="checkbox"/> | VERIFY | CO2 Room Crash | OK |

<input type="checkbox"/>	VERIFY	CO2 Room Blk I/O	OK
<input type="checkbox"/>	VERIFY	Atf Control Room Crash	OK
<input type="checkbox"/>	SWEEP	C2R	
<input type="checkbox"/>	VERIFY	ACR sees CO2 Room	SWEEP GOOD
<input type="checkbox"/>	VERIFY	ACR sees on OVP , Pri CD CO2 Laser Shutter CLS is	ENABLED
<input type="checkbox"/>	VERIFY	Visually CLS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees on OVP , Pri CD Yag to CO2 Shutter YCS is	ENABLED
<input type="checkbox"/>	VERIFY	Visually YCS is	CLOSED
	SWEEP	YR	
<input type="checkbox"/>	VERIFY	ACR sees YR	SWEEP GOOD
<input type="checkbox"/>	VERIFY	ACR sees on OVP , Rhb CD YLS is	ENABLED
<input type="checkbox"/>	VERIFY	Visually YLS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-4 Out 6 is	ON
<input type="checkbox"/>	VERIFY	At C2R Main Panel CLS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-4 Out 11 is	ON
<input type="checkbox"/>	VERIFY	At EH Main Panel CLS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 4 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel YCS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-4 Out 5 is	ON
<input type="checkbox"/>	VERIFY	At CO2 Main Panel YCS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-3 Out 11 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel YCS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 5 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel YLS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-3 Out 9 is	ON
<input type="checkbox"/>	VERIFY	At CO2 Main Panel YLS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-3 Out 1 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel YLS enabled led is	ON
	OPEN	CLS with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-4 Out 2 is	ON
<input type="checkbox"/>	VERIFY	Visually CLS is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn ACRBI/O-2 In 13 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for CLS OPEN on OVP C2BI/O-2 In 3 is	ON
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-3 Out 14 is	ON
<input type="checkbox"/>	VERIFY	At EH Main Panel C2OLS Open led is	ON
	CLOSE	CLS with key at ACR	
<input type="checkbox"/>	VERIFY	Visually CLS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn. ACRBI/O-2 In 13 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees for CLS CLOSED on OVP C2BI/O-2 In 4 is	ON
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-3 Out 15 is	ON
<input type="checkbox"/>	VERIFY	At EH Main Panel CLS Closed led is	ON
	OPEN	CLS with key at C2R	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn C2BI/O-2 In 9 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP CLS is	OPEN
	CLOSE	CLS with key at C2R	

<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn C2BI/O-2 In 9 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP CLS is	CLOSED
	OPEN	YCS with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-5 Out 1 is	ON
<input type="checkbox"/>	VERIFY	Visually YCS is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn ACRBI/O In 2 is	ON
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-3 Out 12 is	ON
<input type="checkbox"/>	VERIFY	At CO2 Main Panel YCS Open led is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-2 Out 12 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel YCS Open led is	ON
	CLOSE	YCS with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-5 Out 1 is	OFF
<input type="checkbox"/>	VERIFY	Visually YCS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn ACRBI/O In 2 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees for YCS CLOSED on OVP YRBI/O In 5 is	ON
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-3 Out 13 is	ON
<input type="checkbox"/>	VERIFY	At CO2 Main Panel YCS Closed led is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-2 Out 13 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel YCS Closed led is	ON
	OPEN	YCS with key at YR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn YRBI/O In 9 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP YCS is	OPEN
	CLOSE	YCS with key at YR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn YRBI/O In 9 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP YCS is	CLOSED
	OPEN	YCS with key at C2R	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn C2BI/O-2 In 10 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP YCS is	OPEN
	CLOSE	YCS with key at C2R	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn C2BI/O-2 In 10 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP YCS is	CLOSED
	OPEN	YCS with key at FR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn FRBI/O In 7 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP YCS is	OPEN
	CLOSE	YCS with key at FR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn FRBI/O In 7 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP YCS is	CLOSED
	OPEN	YLS with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 13 is	ON
<input type="checkbox"/>	VERIFY	Visually YLS is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn. ACRBI/O In 11 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for YLS OPEN on OVP YRBI/O-2 In 6 is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-3 Out 8 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel YLS Open led is	ON
	CLOSE	YLS with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 13 is	OFF
<input type="checkbox"/>	VERIFY	Visually YLS is	CLOSED

- | | | | |
|--------------------------|---------------|--|---------------|
| <input type="checkbox"/> | VERIFY | ACR sees for key in Closed posn. ACRBI/O In 11 is | OFF |
| <input type="checkbox"/> | VERIFY | ACR sees for YLS CLOSED on OVP YRBI/O-2 In 7 is | ON |
| <input type="checkbox"/> | VERIFY | ACR sees FRBI/O-3 Out 9 is | ON |
| <input type="checkbox"/> | VERIFY | At FR Main Panel YLS Closed led is | ON |
| | OPEN | YLS with key at YR | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Open posn YRBI/O In 13 is | ON |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP YLS is | OPEN |
| | CLOSE | YLS with key at YR | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Closed posn YRBI/O In 13 is | OFF |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP YLS is | CLOSED |
| | OPEN | YLS with key at C2R | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Open posn C2BI/O-2 In 8 is | ON |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP YLS is | OPEN |
| | CLOSE | YLS with key at C2R | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Closed posn C2BI/O-2 In 8 is | OFF |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP YLS is | CLOSED |
| | OPEN | YLS with key at FR | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Open posn FRBI/O In 11 is | ON |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP YLS is | OPEN |
| | CLOSE | YLS with key at FR | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Closed posn FRBI/O In 11 is | OFF |
- ☐ **Check for acceptance of test to Verify conditions for Normal State for CO2 Room (C2R): Pri CD, CO2 Osc Laser shutter (CLS) and Rhb CD, CO2 Osc Power Supply (CLPS) Enabled**

1.3 Verify conditions for Normal State for Exp Hall (EH): Pri CDs: EH Laser Shutter (ELS); CO2 to EH Shutter (CES) and Fel to BL3 Shutter (BL3S) and Rhb CDs: EH Laser Power supplies (ELPS); Fel Laser Shutter (FLS); Yag to Fel Shutter (YFS) and CO2 to Fel Shutter (CFS) Enabled

- | | | | |
|--------------------------|---------------|---|-----------------|
| | SET | EH Sweep | NG SWEEP |
| <input type="checkbox"/> | VERIFY | ACR sees EH Sweep is | NG SWEEP |
| | SET | C2R Sweep | NG SWEEP |
| <input type="checkbox"/> | VERIFY | ACR sees C2R Sweep is | NG SWEEP |
| | SET | FR Sweep | NG SWEEP |
| <input type="checkbox"/> | VERIFY | ACR sees FR Sweep is | NG SWEEP |
| | SET | YR Sweep | NG SWEEP |
| <input type="checkbox"/> | VERIFY | ACR sees YR Sweep is | NG SWEEP |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP Pri CDs: ELS <input type="checkbox"/> ; CLS <input type="checkbox"/> and FLS <input type="checkbox"/> | DISABLED |
| <input type="checkbox"/> | VERIFY | Visually ELS <input type="checkbox"/> ; CLS <input type="checkbox"/> and FLS <input type="checkbox"/> are | CLOSED |
| <input type="checkbox"/> | VERIFY | Attempt to open ELS <input type="checkbox"/> ; CLS <input type="checkbox"/> and FLS <input type="checkbox"/> with Shutter keys in ACR | FAIL |
| | SET | ELS , CLS and FLS Shutter keys in Closed position | |
| <input type="checkbox"/> | VERIFY | ELS <input type="checkbox"/> ; CLS <input type="checkbox"/> and FLS <input type="checkbox"/> Shutter key position is | CLOSED |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP Room to Room Shutters (RRS): CES <input type="checkbox"/> ; BL3S <input type="checkbox"/> ; YFS <input type="checkbox"/> and CFS <input type="checkbox"/> | ENABLED |

<input type="checkbox"/>	VERIFY	Visually CES <input type="checkbox"/> ; BL3S <input type="checkbox"/> ; YFS <input type="checkbox"/> and CFS <input type="checkbox"/> are	CLOSED
<input type="checkbox"/>	VERIFY	Attempt to open CES <input type="checkbox"/> ; BL3S <input type="checkbox"/> ; YFS <input type="checkbox"/> and CFS <input type="checkbox"/> with Shutter keys in ACR	SUCCESSFUL
	SET	CES, BL3S, YFS and CFS Shutter keys in Closed position	
<input type="checkbox"/>	VERIFY	ELS <input type="checkbox"/> ; CLS <input type="checkbox"/> and FLS <input type="checkbox"/> Shutter key position is	CLOSED
<input type="checkbox"/>	VERIFY	EH SOR is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP Rhb CD Exp Hall Power Supply (ELPS) is	ENABLED
	CLOSE	Fel Room to Exp Hall gate, FHG1	
<input type="checkbox"/>	VERIFY	FHG1	CLOSED
	CLOSE	Exit Exp Hall gate 1, EHG1	
<input type="checkbox"/>	VERIFY	EHG1	CLOSED
	CLOSE	Exit Exp Hall gate 2, EHG2	
<input type="checkbox"/>	VERIFY	EHG2	CLOSED
<input type="checkbox"/>	VERIFY	Exp Hall Crash	OK
<input type="checkbox"/>	VERIFY	Exp Hall Blk I/O	OK
<input type="checkbox"/>	VERIFY	Atr Control Room Crash	OK
	SWEEP	EH	
<input type="checkbox"/>	VERIFY	ACR sees EH	SWEEP GOOD
<input type="checkbox"/>	VERIFY	ACR sees on OVP Pri CD Exp Hall Laser Shutter (ELS) is	ENABLED
<input type="checkbox"/>	VERIFY	Visually ELS is	CLOSED
	SWEEP	C2R	
<input type="checkbox"/>	VERIFY	ACR sees C2R	SWEEP GOOD
<input type="checkbox"/>	VERIFY	ACR sees on OVP Rhb CD CO2 Laser Shutter (CLS) is	ENABLED
<input type="checkbox"/>	VERIFY	Visually CLS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees on OVP RRS CO2 to FEL Shutter (CFS) is	DISABLED
<input type="checkbox"/>	VERIFY	Visually CFS is	CLOSED
	SWEEP	FR	
<input type="checkbox"/>	VERIFY	ACR sees FR	SWEEP GOOD
<input type="checkbox"/>	VERIFY	ACR sees on OVP Rhb CD FEL Laser Shutter (FLS) is	ENABLED
<input type="checkbox"/>	VERIFY	Visually FLS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees on OVP RRS CO2 to FEL Shutter (CFS) is	ENABLED
<input type="checkbox"/>	VERIFY	Visually CFS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees on OVP RRS FEL to BL3 Shutter (BL3S) remain	ENABLED
<input type="checkbox"/>	VERIFY	Visually BL3S remain	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-4 Out 6 is	ON
<input type="checkbox"/>	VERIFY	At C2R Main Panel CLS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-4 Out 11 is	ON
<input type="checkbox"/>	VERIFY	At EH Main Panel CLS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-5 Out 6 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel FLS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-3 Out 10 is	ON
<input type="checkbox"/>	VERIFY	At C2R Main Panel CES enabled led is	ON

<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-2 Out 10 is	ON
<input type="checkbox"/>	VERIFY	At EH Main Panel CES enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-5 Out 7 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel BL3S enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-4 Out 0 is	ON
<input type="checkbox"/>	VERIFY	At EH Main Panel BL3S enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 3 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel YFS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-3 Out 10 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel YFS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-4 Out 9 is	ON
<input type="checkbox"/>	VERIFY	At EH Main Panel YFS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-3 Out 11 is	ON
<input type="checkbox"/>	VERIFY	At C2R Main Panel CFS enabled led is	ON
	OPEN	ELS with key at EH	
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-4 Out 6 is	ON
<input type="checkbox"/>	VERIFY	Visually ELS is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn EHBI/O-2 In 3 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for ELS OPEN on OVP EHBI/O-2 In 2 is	ON
	CLOSE	ELS with key at EH	
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-4 Out 6 is	OFF
<input type="checkbox"/>	VERIFY	Visually ELS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn EHBI/O-2 In 3 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees for ELS CLOSED on OVP EHBI/O In 1 is	ON
	OPEN	CLS with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-4 Out 2 is	ON
<input type="checkbox"/>	VERIFY	Visually CLS is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn ACRBI/O In 13 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for CLS OPEN on OVP C2BI/O-2 In 3 is	ON
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-3 Out 14 is	ON
<input type="checkbox"/>	VERIFY	At EH Main Panel CLS Open led is	ON
	CLOSE	CLS with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-4 Out 2 is	OFF
<input type="checkbox"/>	VERIFY	Visually CLS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn ACRBI/O In 13 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees for CLS CLOSED on OVP C2BI/O-2 In 4 is	ON
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-3 Out 15 is	ON
<input type="checkbox"/>	VERIFY	At EH Main Panel CLS Closed led is	ON
	OPEN	CLS with key at C2R	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn C2BI/O-2 In 9 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP CLS is	OPEN
	CLOSE	CLS with key at C2R	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn C2BI/O-2 In 9 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP CLS is	CLOSED
	OPEN	FLS with key at ACR	

<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-5 Out 3 is	ON
<input type="checkbox"/>	VERIFY	Visually FLS is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn ACRBI/O In 12 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for FLS OPEN on OVP FRBI/O-4 In 2 is	ON
	CLOSE	FLS with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-5 Out 3 is	OFF
<input type="checkbox"/>	VERIFY	Visually FLS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn ACRBI/O In 12 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees for FLS CLOSED on OVP FRBI/O-4 In 3 is	ON
	OPEN	FLS with key at FR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn FRBI/O-4 In 4 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP FLS is	OPEN
	CLOSE	FLS with key at FR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn FRBI/O-4 In 4 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP FLS is	CLOSED
	OPEN	CES with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-3 Out 1 is	ON
<input type="checkbox"/>	VERIFY	Visually CES is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn ACRBI/O In 6 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for CES OPEN on OVP C2BI/O In 14 is	ON
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-3 Out 11 is	ON
<input type="checkbox"/>	VERIFY	At EH Main Panel CES Open led is	ON
	CLOSE	CES with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-3 Out 1 is	OFF
<input type="checkbox"/>	VERIFY	Visually CES is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn ACRBI/O In 6 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees for CES CLOSED on OVP C2BI/O In 15 is	ON
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-3 Out 13 is	ON
<input type="checkbox"/>	VERIFY	At EH Main Panel CES ClosedC2BI/O In 14 led is	ON
	OPEN	CES with key at C2R	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn C2BI/O-2 In 6 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP CES is	OPEN
	CLOSE	CES with key at C2R	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn C2BI/O-2 In 6 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP CES is	CLOSED
	OPEN	CES with key at EH	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn EHBI/O In 11 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP CES is	OPEN
	CLOSE	CES with key at EH	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn EHBI/O In 11 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP CES is	CLOSED
	OPEN	BL3S with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-5 Out 2 is	ON
<input type="checkbox"/>	VERIFY	Visually BL3S is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn ACRBI/O In 10 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for BL3S OPEN on OVP FRBI/O-4 In 0 is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-3 Out 2 is	ON

<input type="checkbox"/>	VERIFY	At FR Main Panel BL3S Open led is	ON
	CLOSE	BL3S with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-5 Out 2 is	OFF
<input type="checkbox"/>	VERIFY	Visually BL3S is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn ACRBI/O In 10 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees for BL3S CLOSED on OVP FRBI/O-4 In 1 is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-3 Out 3 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel BL3S Closed led is	ON
	OPEN	BL3S with key at FR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn FRBI/O In 12 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP BL3S is	OPEN
	CLOSE	BL3S with key at FR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn FRBI/O In 12 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP BL3S is	CLOSED
	OPEN	BL3S with key at EH	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn EHBI/O In 12 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP BL3S is	OPEN
	CLOSE	BL3S with key at EH	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn EHBI/O In 12 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP BL3S is	CLOSED
	OPEN	YFS with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-5 Out 5 is	ON
<input type="checkbox"/>	VERIFY	Visually YFS is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn ACRBI/O In 1 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for YFS OPEN on OVP FRBI/O-4 In 5 is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-2 Out 10 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel YFS Open led is	ON
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-5 Out 3 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel YFS Open led is	ON
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-4 Out 1 is	ON
<input type="checkbox"/>	VERIFY	At EH Main Panel YFS Open led is	ON
	CLOSE	YFS with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-5 Out 5 is	OFF
<input type="checkbox"/>	VERIFY	Visually YFS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn ACRBI/O In 1 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees for YFS CLOSED on OVP FRBI/O-4 In 6 is	ON
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-5 Out 4 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel YFS Closed led is	ON
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-4 Out 2 is	ON
<input type="checkbox"/>	VERIFY	At EH Main Panel YFS Closed led is	ON
	OPEN	YFS with key at YR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn YRBI/O In 8 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP YFS is	OPEN
	CLOSE	YFS with key at YR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn YRBI/O In 8 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP YFS is	CLOSED
	OPEN	YFS with key at FR	

- | | | | |
|--------------------------|---------------|---|---------------|
| <input type="checkbox"/> | VERIFY | ACR sees for key in Open posn FRBI/O In 10 is | ON |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP YFS is | OPEN |
| | CLOSE | YFS with key at FR | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Closed posn FRBI/O In 10 is | OFF |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP YFS is | CLOSED |
| | OPEN | YFS with key at EH | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Open posn EHBI/O In 10 is | ON |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP YFS is | OPEN |
| | CLOSE | YFS with key at EH | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Closed posn EHBI/O In 10 is | OFF |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP YFS is | CLOSED |
| | OPEN | CFS with key at ACR | |
| <input type="checkbox"/> | VERIFY | ACR sees C2BI/O-4 Out 3 is | ON |
| <input type="checkbox"/> | VERIFY | Visually CFS is | OPEN |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Open posn ACRBI/O In 7 is | ON |
| <input type="checkbox"/> | VERIFY | ACR sees for CFS OPEN on OVP C2BI/O-2 In 0 is | ON |
| <input type="checkbox"/> | VERIFY | ACR sees FRBI/O-2 Out 7 is | ON |
| <input type="checkbox"/> | VERIFY | At FR Main Panel CFS Open led is | ON |
| | CLOSE | CFS with key at ACR | |
| <input type="checkbox"/> | VERIFY | ACR sees C2RBI/O-4 Out 3 is | OFF |
| <input type="checkbox"/> | VERIFY | Visually CFS is | CLOSED |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Closed posn ACRBI/O In 7 is | OFF |
| <input type="checkbox"/> | VERIFY | ACR sees for CFS CLOSED on OVP C2BI/O-2 In 1 is | ON |
| <input type="checkbox"/> | VERIFY | ACR sees FRBI/O-2 Out 8 is | ON |
| <input type="checkbox"/> | VERIFY | At FR Main Panel CFS Closed led is | ON |
| | OPEN | CFS with key at C2R | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Open posn C2BI/O-2 In 7 is | ON |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP CFS is | OPEN |
| | CLOSE | CFS with key at C2R | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Closed posn C2BI/O-2 In 7 is | OFF |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP CFS is | CLOSED |
| | OPEN | CFS with key at FR | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Open posn FRBI/O In 8 is | ON |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP CFS is | OPEN |
| | CLOSE | CFS with key at FR | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Closed posn FRBI/O In 8 is | OFF |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP CFS is | CLOSED |
- ☐ **Verify conditions for Normal State for Exp Hall (EH): Pri CDs: EH Laser Shutter (ELS); CO2 to EH Shutter (CES) and Fel to BL3 Shutter (BL3S) and Rhb CDs: EH Laser Power supplies (ELPS); Fel Laser Shutter (FLS); Yag to Fel Shutter (YFS) and CO2 to Fel Shutter (CFS) Enabled**

1.4 Verify conditions for Normal State for Gun Hutch (GH): Pri CD, Yag to Gun Shutter (YGS) and Rhb CD, Yag Laser Shutter (YLS) Enabled

<input type="checkbox"/>	SET	GH Sweep	NG SWEEP
<input type="checkbox"/>	VERIFY	ACR sees GH Sweep is	NG SWEEP
<input type="checkbox"/>	SET	YR Sweep	NG SWEEP
<input type="checkbox"/>	VERIFY	ACR sees YR Sweep is	NG SWEEP
<input type="checkbox"/>	VERIFY	ACR sees on OVP Room to Room Shutter YGS is	ENABLED
<input type="checkbox"/>	VERIFY	Visually YGS is	CLOSED
<input type="checkbox"/>	VERIFY	Attempt to open YGS with Shutter key in ACR	SUCCESSFUL
<input type="checkbox"/>	VERIFY	Visually YGS is	OPEN
<input type="checkbox"/>	SET	YGS Shutter key in Closed position	
<input type="checkbox"/>	VERIFY	YGS Shutter key position is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees on OVP Local Shutter YLS is	DISABLED
<input type="checkbox"/>	VERIFY	Visually YLS is	CLOSED
<input type="checkbox"/>	VERIFY	Attempt to open YLS with Shutter key in ACR	FAIL
<input type="checkbox"/>	SET	YLS Shutter key in Closed position	
<input type="checkbox"/>	VERIFY	YLS Shutter key position is	CLOSED
<input type="checkbox"/>	CLOSE	Gun Hutch to Vestibule 1 gate, GV1G1	
<input type="checkbox"/>	VERIFY	GV1G1	CLOSED
<input type="checkbox"/>	CLOSE	Exit Vestibule 1 gate, EV1G1	
<input type="checkbox"/>	VERIFY	EV1G1	CLOSED
<input type="checkbox"/>	CLOSE	Yag Room to Vestibule 1 gate, YV1G1	
<input type="checkbox"/>	VERIFY	YV1G1	CLOSED
<input type="checkbox"/>	CLOSE	Laser Lab to Vestibule 1 gate, LV1G1	
<input type="checkbox"/>	VERIFY	LV1G1	CLOSED
<input type="checkbox"/>	VERIFY	GH SOR is	ON
<input type="checkbox"/>	VERIFY	Gun Hutch Crash	OK
<input type="checkbox"/>	VERIFY	Gun Hutch Blk I/O	OK
<input type="checkbox"/>	VERIFY	Atf Control Room Crash	OK
<input type="checkbox"/>	SWEEP	GH	
<input type="checkbox"/>	VERIFY	ACR sees GH	SWEEP GOOD
<input type="checkbox"/>	SWEEP	YR	
<input type="checkbox"/>	VERIFY	ACR sees YR	SWEEP GOOD
<input type="checkbox"/>	VERIFY	ACR sees on OVP Pri CD, Yag to Gun Shutter (YGS) is	ENABLED
<input type="checkbox"/>	VERIFY	Visually YGS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees GHBI/O-2 Out 9 is	ON
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 1 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel YGS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees YR	SWEEP GOOD
<input type="checkbox"/>	VERIFY	ACR sees on OVP Rhb CD, Yag Laser Shutter (YLS) is	ENABLED
<input type="checkbox"/>	VERIFY	Visually YLS is	CLOSED
	OPEN	YGS with key at ACR	

<input type="checkbox"/>	VERIFY	Visually YGS is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 10 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn ACRBI/O In 0 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for YGS OPEN on OVP YRBI/O-2 In 0 is	ON
<input type="checkbox"/>	VERIFY	ACR sees GHBI/O-2 Out 7 is	ON
<input type="checkbox"/>	VERIFY	At GH Main Panel YGS Open led is	ON
	CLOSE	YGS with key at ACR	
<input type="checkbox"/>	VERIFY	Visually YGS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn. ACRBI/O In 0 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees for YGS CLOSED on OVP YRBI/O-2 In 1 is	ON
<input type="checkbox"/>	VERIFY	ACR sees GHBI/O-2 Out 8 is	ON
<input type="checkbox"/>	VERIFY	At GH Main Panel YGS Closed led is	ON
	OPEN	YGS with key at GH	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn GHBI/O In 7 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP YGS is	OPEN
	CLOSE	YGS with key at GH	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn GHBI/O In 7 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP YGS is	CLOSED
	OPEN	YGS with key at YR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn YRBI/O In 7 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP YGS is	OPEN
	CLOSE	YGS with key at YR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn YRBI/O In 7 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP YGS is	CLOSED
	OPEN	YLS with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 13 is	ON
<input type="checkbox"/>	VERIFY	Visually YLS is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn. ACRBI/O In 11 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for YLS OPEN on OVP YRBI/O-2 In 6 is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-3 Out 8 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel YLS Open led is	ON
	CLOSE	YLS with key at ACR	
<input type="checkbox"/>	VERIFY	Visually YLS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn. ACRBI/O In 11 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees for YLS CLOSED on OVP YRBI/O-2 In 7 is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-3 Out 9 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel YLS Closed led is	ON
	OPEN	YLS with key at YR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn YRBI/O In 13 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP YLS is	OPEN
	CLOSE	YLS with key at YR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn YRBI/O In 13 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP YLS is	CLOSED
	OPEN	YLS with key at C2R	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn C2BI/O-2 In 8 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP YLS is	OPEN
	CLOSE	YLS with key at C2R	

- | | | | |
|--------------------------|---------------|--|---------------|
| <input type="checkbox"/> | VERIFY | ACR sees for key in Closed posn C2BI/O-2 In 8 is | OFF |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP YLS is | CLOSED |
| | OPEN | YLS with key at FR | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Open posn FRBI/O In 11 is | ON |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP YLS is | OPEN |
| | CLOSE | YLS with key at FR | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Closed posn FRBI/O In 11 is | OFF |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP YLS is | CLOSED |
- ☐ **Check for acceptance of test to Verify conditions for Normal State for Gun Hutch (GH): Pri CD, Yag to Gun Shutter (YGS) and Rhb CD, Yag Laser Shutter (YLS) Enabled**

1.5 Verify conditions for Normal State for Laser Lab (LL): Pri CDs: Laser Lab Shutter (LLS); Yag to Laser Lab Shutter 1(LY1S) and Rhb CDs: Yag Laser Shutter (YLS) and LL Laser Power Supply (LLPS) Enabled

- | | | | |
|--------------------------|---------------|---|-------------------|
| | SET | LL Sweep | NG SWEEP |
| <input type="checkbox"/> | VERIFY | ACR sees LL Sweep is | NG SWEEP |
| | SET | YR Sweep | NG SWEEP |
| <input type="checkbox"/> | VERIFY | ACR sees YR Sweep is | NG SWEEP |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP Local Shutters: LLS <input type="checkbox"/> and Rhb CD YLS <input type="checkbox"/> are | DISABLED |
| <input type="checkbox"/> | VERIFY | Visually LLS <input type="checkbox"/> and YLS <input type="checkbox"/> are | CLOSED |
| <input type="checkbox"/> | VERIFY | Attempt to open LLS <input type="checkbox"/> and YLS <input type="checkbox"/> with Shutter keys in ACR | FAIL |
| | SET | LLS and YLS Shutter key in Closed position in ACR | |
| <input type="checkbox"/> | VERIFY | LLS <input type="checkbox"/> and YLS <input type="checkbox"/> Shutter key position is | CLOSED |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP Room to Room Shutter LY1S is | ENABLED |
| <input type="checkbox"/> | VERIFY | Visually LY1S is | CLOSED |
| <input type="checkbox"/> | VERIFY | Attempt to open LY1S with Shutter keys in ACR | SUCCESSFUL |
| <input type="checkbox"/> | VERIFY | Visually LY1S is | OPEN |
| | SET | LY1S Shutter key in Closed position in ACR | |
| <input type="checkbox"/> | VERIFY | LY1S Shutter key position is | CLOSED |
| <input type="checkbox"/> | VERIFY | LL SOR is | ON |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP Rhb CD Laser Lab Laser Power Supply (LLPS) is | ENABLED |
| <input type="checkbox"/> | VERIFY | ACR sees LLBI/O-4 Out 0 is | ON |
| | CLOSE | Yag Room to Laser Lab gate, YLG1 | |
| <input type="checkbox"/> | VERIFY | YLG1 | CLOSED |
| | CLOSE | Laser Lab to Vestibule 1 gate, LV1G1 | |
| <input type="checkbox"/> | VERIFY | LV1G1 | CLOSED |
| | CLOSE | Exit Vestibule 1 gate, EV1G1 | |
| <input type="checkbox"/> | VERIFY | EV1G1 | CLOSED |
| | CLOSE | Yag Room to Vestibule 1 gate, YV1G1 | |

<input type="checkbox"/>	VERIFY	YV1G1	CLOSED
	CLOSE	Gun Hutch to Vestibule 1 gate, GV1G1	
<input type="checkbox"/>	VERIFY	GV1G1	CLOSED
	CLOSE	Exit Laser Lab gate 1, ELG1	
<input type="checkbox"/>	VERIFY	ELG1	CLOSED
	CLOSE	Exit Laser Lab gate 2, ELG2	
<input type="checkbox"/>	VERIFY	ELG2	CLOSED
<input type="checkbox"/>	VERIFY	Laser Lab Crash	OK
<input type="checkbox"/>	VERIFY	Laser Lab Blk I/O	OK
<input type="checkbox"/>	VERIFY	ACR Crash	OK
	SWEEP	LL	
<input type="checkbox"/>	VERIFY	ACR sees LL	SWEEP GOOD
<input type="checkbox"/>	VERIFY	ACR sees on OVP Pri CD Laser lab Laser Shutter, LLS , is	ENABLED
<input type="checkbox"/>	VERIFY	Visually LLS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees on OVP Pri CD Yag to Laser Lab Shutter 1 Shutter, LY1S , is	ENABLED
<input type="checkbox"/>	VERIFY	Visually LY1S is	CLOSED
	SWEEP	YR	
<input type="checkbox"/>	VERIFY	ACR sees YR	SWEEP GOOD
<input type="checkbox"/>	VERIFY	ACR sees on OVP Pri CD Yag Laser Shutter, YLS , is	ENABLED
<input type="checkbox"/>	VERIFY	Visually YLS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 9 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel LLS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees LLBI/O-3 Out 11 is	ON
<input type="checkbox"/>	VERIFY	At LL Main Panel LLS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees LLBI/O-3 Out 7 is	ON
<input type="checkbox"/>	VERIFY	At LL Main Panel LY1S enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 0 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel LY1S enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 5 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel YLS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-3 Out 9 is	ON
<input type="checkbox"/>	VERIFY	At CO2 Main Panel YLS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-3 Out 1 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel YLS enabled led is	ON
	OPEN	LLS with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees LLBI/O-4 Out 4 is	ON
<input type="checkbox"/>	VERIFY	Visually LLS is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn. ACRBI/O-2 In 0 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for LLS OPEN on OVP LLBI/O-2 In 1 is	ON
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-3 Out 13 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel LLS Open led is	ON
	CLOSE	LLS with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees LLBI/O-4 Out 4 is	OFF
<input type="checkbox"/>	VERIFY	Visually LLS is	CLOSED

<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn. ACRBI/O-2 In 0 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees for LLS CLOSED on OVP LLBI/O-2 In 2 is	ON
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-3 Out 14 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel LLS Closed led is	ON
	OPEN	LLS with key at YR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn YRBI/O In ?? is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP LLS is	OPEN
	CLOSE	LLS with key at YR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn YRBI/O In ?? is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP LLS is	CLOSED
	OPEN	LLS with key at LL	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn LLBI/O-2 In 3 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP LLS is	OPEN
	CLOSE	LLS with key at LL	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn LLBI/O-2 In 3 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP LLS is	CLOSED
	OPEN	LY1S with key at ACR	
<input type="checkbox"/>	VERIFY	Visually LY1S is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn ACRBI/O In 3 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for LY1S OPEN on OVP LLBI/O In 11 is	ON
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-3 Out 11 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel LY1S Open led is	ON
	CLOSE	LY1S with key at ACR	
<input type="checkbox"/>	VERIFY	Visually LY1S is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn ACRBI/O In 3 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees for LY1S CLOSED on OVP LLBI/O In 12 is	ON
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-3 Out 12 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel LY1S Closed led is	ON
	OPEN	LY1S with key at YR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn YRBI/O In 10 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP LY1S is	OPEN
	CLOSE	LY1S with key at YR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn YRBI/O In 10 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP LY1S is	CLOSED
	OPEN	LY1S with key at LL	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn LLBI/O In 7 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP LY1S is	OPEN
	CLOSE	LY1S with key at LL	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn LLBI/O In 7 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP LY1S is	CLOSED
	OPEN	YLS with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 13 is	ON
<input type="checkbox"/>	VERIFY	Visually YLS is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn. ACRBI/O In 11 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for YLS OPEN on OVP YRBI/O-2 In 6 is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-3 Out 8 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel YLS Open led is	ON

- | | | | |
|--------------------------|--|--|---------------|
| <input type="checkbox"/> | CLOSE | YLS with key at ACR | |
| <input type="checkbox"/> | VERIFY | Visually YLS is | CLOSED |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Closed posn. ACRBI/O In 11 is | OFF |
| <input type="checkbox"/> | VERIFY | ACR sees for YLS CLOSED on OVP YRBI/O-2 In 7 is | ON |
| <input type="checkbox"/> | VERIFY | ACR sees FRBI/O-3 Out 9 is | ON |
| <input type="checkbox"/> | VERIFY | At FR Main Panel YLS Closed led is | ON |
| | | | |
| <input type="checkbox"/> | OPEN | YLS with key at YR | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Open posn YRBI/O In 13 is | ON |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP YLS is | OPEN |
| <input type="checkbox"/> | CLOSE | YLS with key at YR | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Closed posn YRBI/O In 13 is | OFF |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP YLS is | CLOSED |
| | | | |
| <input type="checkbox"/> | OPEN | YLS with key at C2R | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Open posn C2BI/O-2 In 8 is | ON |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP YLS is | OPEN |
| <input type="checkbox"/> | CLOSE | YLS with key at C2R | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Closed posn C2BI/O-2 In 8 is | OFF |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP YLS is | CLOSED |
| | | | |
| <input type="checkbox"/> | OPEN | YLS with key at FR | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Open posn FRBI/O In 11 is | ON |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP YLS is | OPEN |
| <input type="checkbox"/> | CLOSE | YLS with key at FR | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Closed posn FRBI/O In 11 is | OFF |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP YLS is | CLOSED |
| | | | |
| <input type="checkbox"/> | Verify conditions for Normal State for Laser Lab (LL): Pri CDs: Laser Lab Shutter (LLS); Yag to Laser Lab Shutter 1(LY1S) and Rhb CDs: Yag Laser Shutter (YLS) and LL Laser Power Supply (LLPS) Enabled | | |

1.6 Verify conditions for Normal State for Fel Room (FR): Pri CDS: Fel Laser shutter (FLS); CO2 to FR Shutter (CFS); Yag to Fel Shutter (YFS); BL1 to Fel Shutter (BL1S); BL2 to Fel Shutter (BL2S) and Rhb CDs: Fel Laser Power Supply (FLPS); CO2 Laser Shutter (CLS); Yag Laser Shutter (YLS); EH Laser Shutter (ELS); CO2 to EH Shutter (CES) and Yag to Gun Shutter (YGS) Enabled

- | | | | |
|--------------------------|---------------|------------------------------------|-----------------|
| <input type="checkbox"/> | SET | FR Sweep | NG SWEEP |
| <input type="checkbox"/> | VERIFY | ACR sees FR Sweep is | NG SWEEP |
| <input type="checkbox"/> | SET | EH Sweep | NG SWEEP |
| <input type="checkbox"/> | VERIFY | ACR sees EH Sweep is | NG SWEEP |
| <input type="checkbox"/> | SET | C2R Sweep | NG SWEEP |

<input type="checkbox"/>	VERIFY SET	ACR sees C2R Sweep is	NG SWEEP
<input type="checkbox"/>	VERIFY	YR Sweep	NG SWEEP
<input type="checkbox"/>	VERIFY	ACR sees YR Sweep is	NG SWEEP
<input type="checkbox"/>	VERIFY	ACR sees on OVP Local Shutters: ELS <input type="checkbox"/> , CLS <input type="checkbox"/> , YLS <input type="checkbox"/> and FLS <input type="checkbox"/>	DISABLED
<input type="checkbox"/>	VERIFY	Visually ELS <input type="checkbox"/> , CLS <input type="checkbox"/> , YLS <input type="checkbox"/> and FLS <input type="checkbox"/> are	CLOSED
<input type="checkbox"/>	VERIFY	Attempt to open ELS <input type="checkbox"/> , CLS <input type="checkbox"/> , YLS <input type="checkbox"/> and FLS <input type="checkbox"/> with Shutter keys in ACR	FAIL
	SET	ELS , CLS , YLS and FLS Shutter keys in Closed position	
<input type="checkbox"/>	VERIFY	ELS <input type="checkbox"/> , CLS <input type="checkbox"/> , YLS <input type="checkbox"/> and FLS <input type="checkbox"/> Shutter key position is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees on OVP Room to Room Shutters (RRS): CFS <input type="checkbox"/> ; BL1S <input type="checkbox"/> ; BL2S <input type="checkbox"/> ; YFS <input type="checkbox"/> ; CES <input type="checkbox"/> and YGS <input type="checkbox"/>	ENABLED
<input type="checkbox"/>	VERIFY	Visually CFS <input type="checkbox"/> ; BL1S <input type="checkbox"/> ; BL2S <input type="checkbox"/> ; YFS <input type="checkbox"/> ; CES <input type="checkbox"/> and YGS <input type="checkbox"/> are	CLOSED
<input type="checkbox"/>	VERIFY	Attempt to open CFS <input type="checkbox"/> ; BL1S <input type="checkbox"/> ; BL2S <input type="checkbox"/> ; YFS <input type="checkbox"/> ; CES <input type="checkbox"/> and YGS <input type="checkbox"/> with Shutter keys in ACR	SUCCESSFUL
<input type="checkbox"/>	VERIFY SET	Visually CFS <input type="checkbox"/> ; BL1S <input type="checkbox"/> ; BL2S <input type="checkbox"/> ; YFS <input type="checkbox"/> ; CES <input type="checkbox"/> and YGS <input type="checkbox"/> are CFS , BL1S , BL2S , YFS , CES and YGS Shutter keys in Closed position	OPEN
<input type="checkbox"/>	VERIFY	CFS <input type="checkbox"/> ; BL1S <input type="checkbox"/> ; BL2S <input type="checkbox"/> ; YFS <input type="checkbox"/> ; CES <input type="checkbox"/> and YGS <input type="checkbox"/> Shutter key position is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees on OVP Room to Room Shutters (RRS): CFS <input type="checkbox"/> ; BL1S <input type="checkbox"/> ; BL2S <input type="checkbox"/> ; YFS <input type="checkbox"/> ; CES <input type="checkbox"/> and YGS <input type="checkbox"/>	ENABLED
<input type="checkbox"/>	VERIFY	Visually CFS <input type="checkbox"/> ; BL1S <input type="checkbox"/> ; BL2S <input type="checkbox"/> ; YFS <input type="checkbox"/> ; CES <input type="checkbox"/> and YGS <input type="checkbox"/> are	CLOSED
<input type="checkbox"/>	VERIFY	FR SOR is	ON
<input type="checkbox"/>	VERIFY	Rhb CD Fel Laser Power Supply (FLPS) is	ENABLED
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-5 Out 4 is	ON
	CLOSE	Fel Room to Vestibule 2 gate, FV2G1	
<input type="checkbox"/>	VERIFY	FV2G1	CLOSED
	CLOSE	Fel Room to Exp Hall gate, FHG1	
<input type="checkbox"/>	VERIFY	FHG1	CLOSED
	CLOSE	Exit Vestibule 2 gate, EV2G1	
<input type="checkbox"/>	VERIFY	EV2G1	CLOSED
	CLOSE	CO2 Room to Vestibule 2 gate, CV2G1	
<input type="checkbox"/>	VERIFY	CV2G1	CLOSED
<input type="checkbox"/>	VERIFY	Fel Room Crash	OK
<input type="checkbox"/>	VERIFY	Fel Room Blk I/O	OK
<input type="checkbox"/>	VERIFY	Atf Control Room Crash	OK
	SWEEP	FR	
<input type="checkbox"/>	VERIFY	ACR sees FR	SWEEP GOOD
<input type="checkbox"/>	VERIFY	ACR sees on OVP Pri CD FEL Laser Shutter (FLS) is	ENABLED
<input type="checkbox"/>	VERIFY	Visually FLS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees on OVP RRS: CFS <input type="checkbox"/> ; BL1S <input type="checkbox"/> ; BL2S <input type="checkbox"/> ; YFS <input type="checkbox"/> ; CES <input type="checkbox"/> and YGS <input type="checkbox"/> remain	ENABLED

<input type="checkbox"/>	SWEEP	EH	
<input type="checkbox"/>	VERIFY	ACR sees EH	SWEEP GOOD
<input type="checkbox"/>	VERIFY	ACR sees on OVP Rhb CD Exp Hall Laser Shutter (ELS) is	ENABLED
<input type="checkbox"/>	VERIFY	Visually ELS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees on OVP RRS: CFS <input type="checkbox"/> ; BL1S <input type="checkbox"/> ; BL2S <input type="checkbox"/> ; YFS <input type="checkbox"/> ; CES <input type="checkbox"/> and YGS <input type="checkbox"/> remain	ENABLED
<input type="checkbox"/>	SWEEP	C2R	
<input type="checkbox"/>	VERIFY	ACR sees C2R	SWEEP GOOD
<input type="checkbox"/>	VERIFY	ACR sees on OVP Rhb CD CO2 Laser Shutter (CLS) is	ENABLED
<input type="checkbox"/>	VERIFY	Visually CLS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees on OVP RRS: CFS <input type="checkbox"/> ; BL1S <input type="checkbox"/> ; BL2S <input type="checkbox"/> ; YFS <input type="checkbox"/> ; CES <input type="checkbox"/> and YGS <input type="checkbox"/> remain	ENABLED
<input type="checkbox"/>	SWEEP	YR	
<input type="checkbox"/>	VERIFY	ACR sees YR	SWEEP GOOD
<input type="checkbox"/>	VERIFY	ACR sees on OVP Rhb CD Yag Laser Shutter (YLS) is	ENABLED
<input type="checkbox"/>	VERIFY	Visually YLS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees on OVP RRS: YGS	ENABLED
<input type="checkbox"/>	VERIFY	ACR sees on OVP RRS: CFS <input type="checkbox"/> ; BL1S <input type="checkbox"/> ; BL2S <input type="checkbox"/> ; YFS <input type="checkbox"/> and CES <input type="checkbox"/> remain	ENABLED
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-5 Out 6 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel FLS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-4 Out 6 is	ON
<input type="checkbox"/>	VERIFY	At C2R Main Panel CLS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-4 Out 11 is	ON
<input type="checkbox"/>	VERIFY	At EH Main Panel CLS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 5 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel YLS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-3 Out 9 is	ON
<input type="checkbox"/>	VERIFY	At CO2 Main Panel YLS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-3 Out 1 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel YLS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-3 Out 11 is	ON
<input type="checkbox"/>	VERIFY	At CO2 Main Panel CFS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-3 Out 0 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel CFS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 3 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel YFS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-3 Out 10 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel YFS enabled led is	ON

<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-4 Out 9 is	ON
<input type="checkbox"/>	VERIFY	At EH Main Panel YFS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-3 Out 14 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel BL1S <input type="checkbox"/> and BL2S <input type="checkbox"/> enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-3 Out 10 is	ON
<input type="checkbox"/>	VERIFY	At C2R Main Panel CES enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-2 Out 10 is	ON
<input type="checkbox"/>	VERIFY	At EH Main Panel CES enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees GHBI/O-2 Out 9 is	ON
<input type="checkbox"/>	VERIFY	At GH Main Panel YGS enabled led is	ON
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 1 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel YGS enabled led is	ON
	OPEN	FLS with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-5 Out 3 is	ON
<input type="checkbox"/>	VERIFY	Visually FLS is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn ACRBI/O In 12 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for FLS OPEN on OVP FRBI/O-4 In 2 is	ON
	CLOSE	FLS with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-5 Out 3 is	OFF
<input type="checkbox"/>	VERIFY	Visually FLS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn ACRBI/O In 12 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees for FLS CLOSED on OVP FRBI/O-4 In 3 is	ON
	OPEN	FLS with key at FR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn FRBI/O-4 In 4 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP FLS is	OPEN
	CLOSE	FLS with key at FR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn FRBI/O-4 In 4 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP FLS is	CLOSED
	OPEN	ELS with key at EH	
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-4 Out 6 is	ON
<input type="checkbox"/>	VERIFY	Visually ELS is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn EHBI/O-2 In 3 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for ELS OPEN on OVP EHBI/O-2 In 2 is	ON
	CLOSE	ELS with key at EH	
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-4 Out 6 is	OFF
<input type="checkbox"/>	VERIFY	Visually ELS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn EHBI/O-2 In 3 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees for ELS CLOSED on OVP EHBI/O In 1 is	ON
	OPEN	CLS with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-4 Out 2 is	ON
<input type="checkbox"/>	VERIFY	Visually CLS is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn ACRBI/O In 13 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for CLS OPEN on OVP C2BI/O-2 In 3 is	ON
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-3 Out 14 is	ON
<input type="checkbox"/>	VERIFY	At EH Main Panel CLS Open led is	ON

<input type="checkbox"/>	CLOSE	CLS with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-4 Out 2 is	OFF
<input type="checkbox"/>	VERIFY	Visually CLS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn ACRBI/O In 13 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees for CLS CLOSED on OVP C2BI/O-2 In 4 is	ON
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-3 Out 15 is	ON
<input type="checkbox"/>	VERIFY	At EH Main Panel CLS Closed led is	ON
<input type="checkbox"/>	OPEN	CLS with key at C2R	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn C2BI/O-2 In 9 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP CLS is	OPEN
<input type="checkbox"/>	CLOSE	CLS with key at C2R	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn C2BI/O-2 In 9 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP CLS is	CLOSED
<input type="checkbox"/>	OPEN	YLS with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 13 is	ON
<input type="checkbox"/>	VERIFY	Visually YLS is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn. ACRBI/O In 11 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for YLS OPEN on OVP YRBI/O-2 In 6 is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-3 Out 8 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel YLS Open led is	ON
<input type="checkbox"/>	CLOSE	YLS with key at ACR	
<input type="checkbox"/>	VERIFY	Visually YLS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn. ACRBI/O In 11 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees for YLS CLOSED on OVP YRBI/O-2 In 7 is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-3 Out 9 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel YLS Closed led is	ON
<input type="checkbox"/>	OPEN	YLS with key at YR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn YRBI/O In 13 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP YLS is	OPEN
<input type="checkbox"/>	CLOSE	YLS with key at YR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn YRBI/O In 13 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP YLS is	CLOSED
<input type="checkbox"/>	OPEN	YLS with key at C2R	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn C2BI/O-2 In 8 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP YLS is	OPEN
<input type="checkbox"/>	CLOSE	YLS with key at C2R	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn C2BI/O-2 In 8 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP YLS is	CLOSED
<input type="checkbox"/>	OPEN	YLS with key at FR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn FRBI/O In 11 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP YLS is	OPEN
<input type="checkbox"/>	CLOSE	YLS with key at FR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn FRBI/O In 11 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP YLS is	CLOSED
<input type="checkbox"/>	OPEN	CFS with key at ACR	
<input type="checkbox"/>	VERIFY	Visually CFS is	OPEN

<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn ACRBI/O In 7 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for CFS OPEN on OVP C2BI/O-2 In 0 is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-2 Out 7 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel CFS Open led is	ON
	CLOSE	CFS with key at ACR	
<input type="checkbox"/>	VERIFY	Visually CFS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn ACRBI/O In 7 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees for CFS CLOSED on OVP YRBI/O-2 In 1 is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-2 Out 8 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel CFS Closed led is	ON
<input type="checkbox"/>	VERIFY	Visual check for CFS in OPEN <input type="checkbox"/> and CLOSED <input type="checkbox"/>	POSITIONS
	OPEN	CFS with key at C2R	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn C2BI/O In 7 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP CFS is	OPEN
	CLOSE	CFS with key at C2R	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn C2BI/O In 7 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP CFS is	CLOSED
	OPEN	CFS with key at FR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn FRBI/O In 8 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP CFS is	OPEN
	CLOSE	CFS with key at FR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn FRBI/O In 8 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP CFS is	CLOSED
	OPEN	YFS with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-5 Out 5 is	ON
<input type="checkbox"/>	VERIFY	Visually YFS is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn ACRBI/O In 1 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for YFS OPEN on OVP FRBI/O-4 In 5 is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-2 Out 10 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel YFS Open led is	ON
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-5 Out 3 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel YFS Open led is	ON
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-4 Out 1 is	ON
<input type="checkbox"/>	VERIFY	At EH Main Panel YFS Open led is	ON
	CLOSE	YFS with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-5 Out 5 is	OFF
<input type="checkbox"/>	VERIFY	Visually YFS is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn ACRBI/O In 1 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees for YFS CLOSED on OVP FRBI/O-4 In 6 is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-2 Out 11 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel YFS Closed led is	ON
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-5 Out 4 is	ON
<input type="checkbox"/>	VERIFY	At YR Main Panel YFS Closed led is	ON
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-4 Out 2 is	ON
<input type="checkbox"/>	VERIFY	At EH Main Panel YFS Closed led is	ON
	OPEN	YFS with key at YR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn YRBI/O In 8 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP YFS is	OPEN

<input type="checkbox"/>	CLOSE	YFS with key at YR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn YRBI/O In 8 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP YFS is	CLOSED
<input type="checkbox"/>	OPEN	YFS with key at FR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn FRBI/O In 10 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP YFS is	OPEN
<input type="checkbox"/>	CLOSE	YFS with key at FR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn FRBI/O In 10 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP YFS is	CLOSED
<input type="checkbox"/>	OPEN	YFS with key at EH	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn EHBI/O In 10 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP YFS is	OPEN
<input type="checkbox"/>	CLOSE	YFS with key at EH	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn EHBI/O In 10 is	OFF
<input type="checkbox"/>	OPEN	BL1S with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-4 Out 5 is	ON
<input type="checkbox"/>	VERIFY	Visually BL1S is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn ACRBI/O In 8 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for BL1S OPEN on OVP EHBI/O-2 In 8 is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-3 Out 6 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel BL1S Open led is	ON
<input type="checkbox"/>	CLOSE	BL1S with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-4 Out 5 is	OFF
<input type="checkbox"/>	VERIFY	Visually BL1S is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn ACRBI/O In 8 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees for BL1S CLOSED on OVP EHBI/O-2 In 9 is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-3 Out 7 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel BL1S Closed led is	ON
<input type="checkbox"/>	OPEN	BL1S with key at FR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn FRBI/O In 13 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP BL1S is	OPEN
<input type="checkbox"/>	CLOSE	BL1S with key at FR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn FRBI/O In 13 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP BL1S is	CLOSED
<input type="checkbox"/>	OPEN	BL2S with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-4 Out 3 is	ON
<input type="checkbox"/>	VERIFY	Visually BL2S is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn ACRBI/O In 9 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for BL2S OPEN on OVP EHBI/O-2 In 6 is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-3 Out 4 is	ON
<input type="checkbox"/>	VERIFY	At FR Main Panel BL2S Open led is	ON
<input type="checkbox"/>	CLOSE	BL2S with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-4 Out 3 is	OFF
<input type="checkbox"/>	VERIFY	Visually BL2S is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn ACRBI/O In 9 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees for BL1S CLOSED on OVP EHBI/O-2 In 7 is	ON
<input type="checkbox"/>	VERIFY	ACR sees FRBI/O-3 Out 5 is	ON

<input type="checkbox"/>	VERIFY	At FR Main Panel BL1S Closed led is	ON
	OPEN	BL2S with key at FR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn FRBI/O In 9 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP BL2S is	OPEN
	CLOSE	BL2S with key at FR	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn FRBI/O In 9 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP BL2S is	CLOSED
	OPEN	BL2S with key at EH	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn EHBI/O In 13 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP BL2S is	OPEN
	CLOSE	BL2S with key at EH	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn EHBI/O In 13 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP BL2S is	CLOSED
	OPEN	CES with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-3 Out 1 is	ON
<input type="checkbox"/>	VERIFY	Visually CES is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn ACRBI/O In 6 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for CES OPEN on OVP C2BI/O In 14 is	ON
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-3 Out 11 is	ON
<input type="checkbox"/>	VERIFY	At EH Main Panel CES Open led is	ON
	CLOSE	CES with key at ACR	
<input type="checkbox"/>	VERIFY	ACR sees C2BI/O-3 Out 1 is	OFF
<input type="checkbox"/>	VERIFY	Visually CES is	CLOSED
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn ACRBI/O In 6 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees for CES CLOSED on OVP C2BI/O In 15 is	ON
<input type="checkbox"/>	VERIFY	ACR sees EHBI/O-3 Out 13 is	ON
<input type="checkbox"/>	VERIFY	At EH Main Panel CES Closed C2BI/O In 14 led is	ON
	OPEN	CES with key at C2R	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn C2BI/O-2 In 6 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP CES is	OPEN
	CLOSE	CES with key at C2R	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn C2BI/O-2 In 6 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP CES is	CLOSED
	OPEN	CES with key at EH	
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn EHBI/O In 11 is	ON
<input type="checkbox"/>	VERIFY	ACR sees on OVP CES is	OPEN
	CLOSE	CES with key at EH	
<input type="checkbox"/>	VERIFY	ACR sees for key in Closed posn EHBI/O In 11 is	OFF
<input type="checkbox"/>	VERIFY	ACR sees on OVP CES is	CLOSED
	OPEN	YGS with key at ACR	
<input type="checkbox"/>	VERIFY	Visually YGS is	OPEN
<input type="checkbox"/>	VERIFY	ACR sees YRBI/O-4 Out 10 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for key in Open posn ACRBI/O In 0 is	ON
<input type="checkbox"/>	VERIFY	ACR sees for YGS OPEN on OVP YRBI/O-2 In 0 is	ON
<input type="checkbox"/>	VERIFY	ACR sees GHBI/O-2 Out 7 is	ON
<input type="checkbox"/>	VERIFY	At GH Main Panel YGS Open led is	ON

- | | | | |
|--------------------------|---|--|---------------|
| | CLOSE | YGS with key at ACR | |
| <input type="checkbox"/> | VERIFY | Visually YGS is | CLOSED |
| <input type="checkbox"/> | VERIFY | ACR sees YRBI/O-4 Out 10 is | OFF |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Closed posn. ACRBI/O In 0 is | OFF |
| <input type="checkbox"/> | VERIFY | ACR sees for YGS CLOSED on OVP YRBI/O-2 In 1 is | ON |
| <input type="checkbox"/> | VERIFY | ACR sees GHBI/O-2 Out 8 is | ON |
| <input type="checkbox"/> | VERIFY | At GH Main Panel YGS Closed led is | ON |
| | | | |
| | OPEN | YGS with key at GH | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Open posn GHBI/O In 7 is | ON |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP YGS is | OPEN |
| | CLOSE | YGS with key at GH | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Closed posn GHBI/O In 7 is | OFF |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP YGS is | CLOSED |
| | | | |
| | OPEN | YGS with key at YR | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Open posn YRBI/O In 7 is | ON |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP YGS is | OPEN |
| | CLOSE | YGS with key at YR | |
| <input type="checkbox"/> | VERIFY | ACR sees for key in Closed posn YRBI/O In 7 is | OFF |
| <input type="checkbox"/> | VERIFY | ACR sees on OVP YGS is | CLOSED |
| | | | |
| <input type="checkbox"/> | Verify conditions for Normal State for Fel Room (FR): Pri CDS: Fel Laser shutter (FLS); CO2 to FR Shutter (CFS); Yag to Fel Shutter (YFS); BL1 to Fel Shutter (BL1S); BL2 to Fel Shutter (BL2S) and Rhb CDs: Fel Laser Power Supply (FLPS); CO2 Laser Shutter (CLS); Yag Laser Shutter (YLS); EH Laser Shutter (ELS); CO2 to EH Shutter (CES) and Yag to Gun Shutter (YGS) Enabled | | |

END OF TEST PROCEDURE

TTL: Sign for completion of initial testing: _____

Date: ____/____/____

TTL: Sign for completion of final testing: _____

Date: ____/____/____